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(54) **Method and apparatus for synchronizing multiple serial datastreams in parallel**

(57) A circuit for receiving multiple serial datastreams in parallel is disclosed. A bit clock is recovered from each data stream, there being one data bit for each transition of the clock signal both positive and negative going. The phases of the bit clocks are compared and are adjusted by 180 degrees so that the positive going

edges of all occur close to each other. The bits of each stream are assembled into words under the control of a word clock. In one embodiment a common word clock is derived from the set of bit clocks as a whole. In another embodiment each stream is provided with its own word clock which is aligned to positive edges of the respective bit clocks that are close to each other.

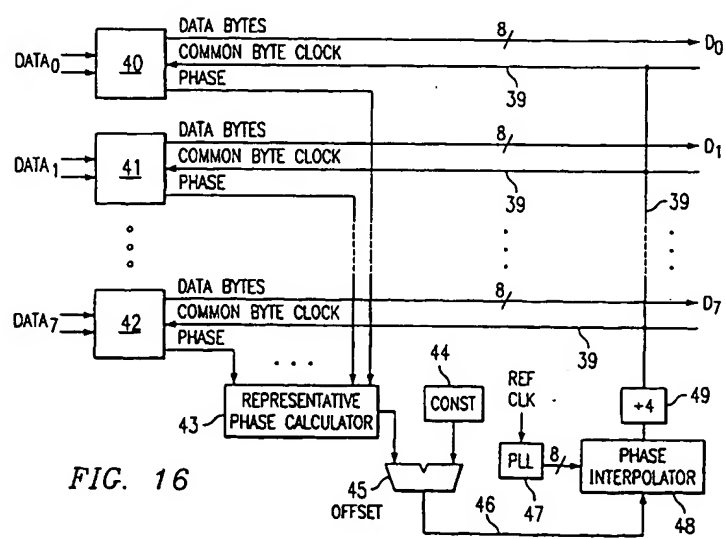


FIG. 16

EP 1 385 308 A1



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EUROPEAN SEARCH REPORT

Application Number
EP 02 25 5121

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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Y	US 4 433 424 A (TABER LOUIS ET AL) 21 February 1984 (1984-02-21) * abstract * * column 1, line 65 - column 2, line 46 * * claim 1 *	1-9	
A	US 4 677 618 A (HAAS LEE C ET AL) 30 June 1987 (1987-06-30) * column 2, line 46 - line 68 * * column 6, line 49 - column 7, line 15 * * figure 9 *	1-9	
A	US 5 920 897 A (WEST ERIC T ET AL) 6 July 1999 (1999-07-06) * abstract * * column 3, line 35 - column 4, line 35 * * figure 4B *	1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H04L H04J H04B
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 25 November 2002	Examiner Baltersee, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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